

Release notes for ENDF/B Development photoat-003\_Li\_000  
evaluation



October 13, 2016

- checkr Warnings:

1. A previous error halted parsing of the current section  
*MAT= 300, MF= 1, MT=451 (1): Parsing stopped*

```
ERROR(S) FOUND IN MAT= 300, MF= 1, MT=451
SECTION CANNOT BE CHECKED FROM SEQUENCE NUMBER      145 TO      159
```

- checkr Errors:

1. A variable is outside the allowed ENDF range  
*MAT= 300, MF= 1, MT=451 (0): Variable range*

```
ERROR(S) FOUND IN MAT= 300, MF= 1, MT=451
MOD =      3 OUT OF RANGE      0 -      1      RECORD NUMBER      145
```

2. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT= 300, MF=23, MT=501 (0): Directory (b)*

```
ERROR(S) FOUND IN MAT= 300, MF=23, MT=501
SECTION 23/501 NOT IN DIRECTORY      RECORD NUMBER      161
```

3. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT= 300, MF=23, MT=502 (0): Directory (b)*

```
ERROR(S) FOUND IN MAT= 300, MF=23, MT=502
SECTION 23/502 NOT IN DIRECTORY      RECORD NUMBER      465
```

4. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT= 300, MF=23, MT=504 (0): Directory (b)*

```
ERROR(S) FOUND IN MAT= 300, MF=23, MT=504
SECTION 23/504 NOT IN DIRECTORY      RECORD NUMBER      637
```

5. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT= 300, MF=23, MT=515 (0): Directory (b)*

```
ERROR(S) FOUND IN MAT= 300, MF=23, MT=515
SECTION 23/515 NOT IN DIRECTORY      RECORD NUMBER      678
```

6. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT= 300, MF=23, MT=516 (0): Directory (b)*

```
ERROR(S) FOUND IN MAT= 300, MF=23, MT=516
SECTION 23/516 NOT IN DIRECTORY      RECORD NUMBER      709
```

7. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT= 300, MF=23, MT=517 (0): Directory (b)*

ERROR(S) FOUND IN MAT= 300, MF=23, MT=517  
SECTION 23/517 NOT IN DIRECTORY RECORD NUMBER 753

8. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT= 300, MF=23, MT=522 (0): Directory (b)*

ERROR(S) FOUND IN MAT= 300, MF=23, MT=522  
SECTION 23/522 NOT IN DIRECTORY RECORD NUMBER 788

9. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT= 300, MF=23, MT=534 (0): Directory (b)*

ERROR(S) FOUND IN MAT= 300, MF=23, MT=534  
SECTION 23/534 NOT IN DIRECTORY RECORD NUMBER 852

10. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT= 300, MF=23, MT=535 (0): Directory (b)*

ERROR(S) FOUND IN MAT= 300, MF=23, MT=535  
SECTION 23/535 NOT IN DIRECTORY RECORD NUMBER 885

11. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT= 300, MF=27, MT=502 (0): Directory (b)*

ERROR(S) FOUND IN MAT= 300, MF=27, MT=502  
SECTION 27/502 NOT IN DIRECTORY RECORD NUMBER 925

12. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT= 300, MF=27, MT=504 (0): Directory (b)*

ERROR(S) FOUND IN MAT= 300, MF=27, MT=504  
SECTION 27/504 NOT IN DIRECTORY RECORD NUMBER 973

13. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT= 300, MF=27, MT=505 (0): Directory (b)*

ERROR(S) FOUND IN MAT= 300, MF=27, MT=505  
SECTION 27/505 NOT IN DIRECTORY RECORD NUMBER 1023

14. Missing a section in directory so your directory is messed up. This error will break everything else  
*MAT= 300, MF=27, MT=506 (0): Directory (b)*

ERROR(S) FOUND IN MAT= 300, MF=27, MT=506  
SECTION 27/506 NOT IN DIRECTORY RECORD NUMBER 1119

• fudge-4.0 Warnings:

- generic warning message  
*reaction label 0: Li + gamma [coherent] / Product: gamma (Error # 0): Warning*

WARNING: coherentScattering is not a valid distribution component for 2-body reaction

2. FIXME: Generic fudge unimplemented message  
*reaction label 0: Li + gamma [coherent] / Product: gamma (Error # 2): Generic unimp (c)*

WARNING: Checking not yet implemented for pointwise type data

3. generic warning message  
*reaction label 1: Li + gamma [incoherent] / Product: gamma (Error # 0): Warning*

WARNING: incoherentScattering is not a valid distribution component for 2-body reaction

4. FIXME: Generic fudge unimplemented message  
*reaction label 1: Li + gamma [incoherent] / Product: gamma (Error # 2): Generic unimp (c)*

WARNING: Checking not yet implemented for piecewise type data

5. Cross sections do not correctly sum up properly according to an ENDF (or equivalent) sumrule  
*summedReaction label 6: total (Error # 0): Sumrule*

WARNING: Cross section does not match sum of linked reaction cross sections! Max diff: 100.00%

6. Cross sections do not correctly sum up properly according to an ENDF (or equivalent) sumrule  
*summedReaction label 8: photoelectric absorption (Error # 0): Sumrule*

WARNING: Cross section does not match sum of linked reaction cross sections! Max diff: 96.40%

• fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0: Li + gamma [coherent] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1. eV!

2. 2-body reaction not in center-of-mass frame  
*reaction label 0: Li + gamma [coherent] / Product: gamma (Error # 1): 2-body not in COM*

WARNING: 2-body reaction not in center-of-mass frame!

3. Calculated and tabulated thresholds don't agree  
*reaction label 1: Li + gamma [incoherent] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1. eV!

4. 2-body reaction not in center-of-mass frame  
*reaction label 1: Li + gamma [incoherent] / Product: gamma (Error # 1): 2-body not in COM*

WARNING: 2-body reaction not in center-of-mass frame!

5. Energy range of data set does not match cross section range  
*reaction label 1: Li + gamma [incoherent] / Product: gamma / Distribution incoherentScattering - piecewise: (Error # 0): Domain mismatch (a)*

WARNING: Domain doesn't match the cross section domain: (0.0 -> 1000000000.0) vs (1.0 -> 1e+11)

6. Calculated and tabulated thresholds don't agree  
*reaction label 2: e- + e+ + Li [electron field] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2.044e6 eV!

7. Calculated and tabulated thresholds don't agree  
*reaction label 3: e- + e+ + Li [nuclear field] / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1.022e6 eV!

8. Calculated and tabulated thresholds don't agree  
*reaction label 4: e- + Li1s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 59.85 eV!

9. Calculated and tabulated thresholds don't agree  
*reaction label 5: e- + Li2s1/2 / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5.5 eV!

10. Calculated and tabulated thresholds don't agree  
*summedReaction label 6: total / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1. eV!

11. Calculated and tabulated thresholds don't agree  
*summedReaction label 7: pair product / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1.022e6 eV!

12. Calculated and tabulated thresholds don't agree  
*summedReaction label 8: photoelectric absorption / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5.5 eV!